2 **Manuscript Title:** 3 4 Projection of corn production and stover-harvesting impacts on soil organic dynamics in the U.S. Temperate Prairies 5 6 **Authors:** 7 Yiping Wu^{1*}, Shuguang Liu^{2*}, Claudia J. Young³, Devendra Dahal⁴, Terry L. Sohl², Brian 8 9 Davis⁴ 10 ¹ ASRC Federal, contractor to U.S. Geological Survey (USGS) Earth Resources 11 12 Observation and Science (EROS) Center, Sioux Falls, SD 57198, USA 13 Email: ywu@usgs.gov (Y. Wu) ² U.S. Geological Survey (USGS) Earth Resources Observation and Science (EROS) 14 Center, Sioux Falls, SD 57198, USA 15 16 Email: sliu@usgs.gov (S. Liu) ³ Innovate! Inc., contractor to the USGS EROS Center, Sioux Falls, SD 57198 17 ⁴ Stinger Ghaffarian Technologies, contractor to the USGS EROS Center, Sioux Falls, SD 18 57198 19 20 21

Supporting Information

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22 Projected land cover trend

- 23 Based on the FORE-SCE land cover model projections, the annual proportions of
- land-cover classes during 2001 through 2050 under the four IPCC scenarios (A1B, A2, B1,
- and B2) are presented below.

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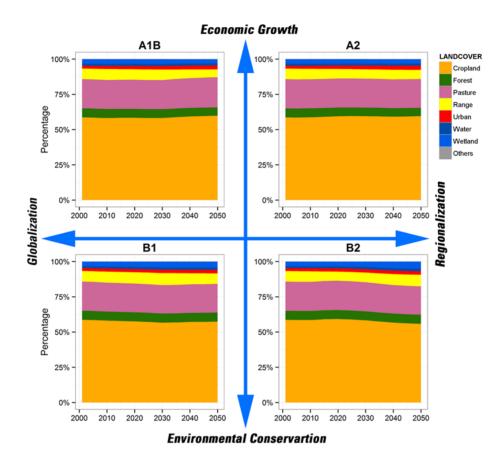


Figure S.1 Annual time series of land-cover class proportions in the Temperate Prairies region from 2001 to 2050 under the four scenarios (A1B, A2, B1, and B2).

31 Location of the study area

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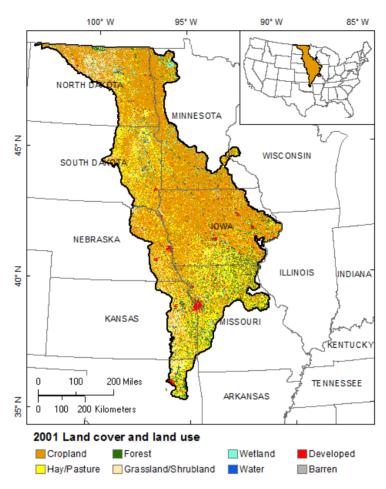


Figure S.2 Location and the land cover and land use map (2001) of the Temperate Prairies (Ecoregion 9.2). The map was created using ArcGIS10.2.